



## Using the Environmental Deviation from the Mean

Note: this lesson builds on CaSQ\_32A

### Task: Calculating the deviation from the mean

The following table shows the mean value calculated for all students who completed the 2010 CensusAtSchool questionnaire.

**1.** For each State or Territory, calculate its overall mean.

| Issue                                  | ACT   | NSW   | NT    | QLD   | SA    | TAS   | VIC   | WA    |
|----------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Reducing pollution                     | 713.4 | 694.6 | 679.2 | 652.6 | 655.2 | 621.7 | 680.3 | 685.9 |
| Recycling our rubbish                  | 721.2 | 685.8 | 641.2 | 628.3 | 638.0 | 615.4 | 673.9 | 651.3 |
| Conserving water                       | 768.4 | 722.2 | 672.6 | 690.0 | 723.3 | 625.1 | 752.1 | 712.0 |
| Reducing energy usage                  | 681.3 | 647.8 | 623.6 | 615.5 | 597.5 | 563.6 | 635.5 | 630.5 |
| Conserving old growth forests          | 635.2 | 585.2 | 616.5 | 580.0 | 552.8 | 558.3 | 568.3 | 587.8 |
| Protecting coastal/marine environments | 702.7 | 672.9 | 672.8 | 668.2 | 632.5 | 635.3 | 646.5 | 667.1 |
| State/<br>Territory<br>Overall mean    |       |       |       |       |       |       |       |       |

**2.** For each State or Territory, shade in red the ratings that are below its overall mean.

**3.** Comment on any patterns or differences you see when you compare the overall mean for each State or Territory and how each rating compares with its overall mean.

**4.** For your own State or Territory, discuss the results when compared to the other States and Territories and give possible reasons.



## ***Extension:***

**5.** Explain how you would go about collecting evidence for the reasons you gave in question 4.